New Hampshire
CO_2 Budget Trading Program

Offset Project Consistency Application

Reduction in Emissions of SF_6

Version 1.0

May 2009

Contents

1. Overview

To demonstrate that an offset project involving reduction in emissions of SF_6 qualifies for the award of CO_2 offset allowances, a Project Sponsor must submit to the New Hampshire Department of Environmental Services in accordance with these instructions, a fully completed *Offset Project Consistency Application – Reduction in Emissions of SF_6 Version 1.0* ("*Consistency Application*"), including the coversheet and all forms and related attachments. An incomplete *Consistency Application* will not be reviewed to determine consistency. Following these instructions will ensure that the *Consistency Application* contains all necessary information and is submitted properly.

Each Project Sponsor should review the CO_2 Budget Trading Program regulations at Env-A 4700 addressing offset projects and the award of CO_2 offset allowances. All offset application materials and other documents are available at http://des.nh.gov/organization/divisions/air/tsb/tps/climate/rggi/index.htm.

Before the *Consistency Application* can be completed, the Project Sponsor must establish a general account and obtain an offset project ID code through the RGGI CO_2 Allowance Tracking System (RGGI COATS). The Project Sponsor identified in the *Consistency Application* must be the same as the Authorized Account Representative for the RGGI COATS general account identified in the *Consistency Application*. For information about establishing a RGGI COATS general account and offset project ID code, consult the RGGI COATS User's Guide, available at http://www.rggi-coats.org.

Key eligibility dates and application submittal requirements for offset projects are as follows:

- For offset projects commenced between December 20, 2005, and December 31, 2008, the *Consistency Application* must be submitted by December 31, 2009.
- For offset projects commenced on or after January 1, 2009, the *Consistency Application* must be submitted within six months after the project is commenced.
- For an offset project located in one participating state, the *Consistency Application* must be filed with the appropriate regulatory agency in that state.
- For an offset project located in more than one participating state, the *Consistency Application* must be filed in the participating state where the majority of the CO_2-equivalent emissions reduction or carbon sequestration due to the offset project is expected to occur.

2. Submission Instructions

Submit one (1) complete hardcopy original *Consistency Application* as well as an electronic copy in the form of a CD disk to the New Hampshire Department of Environmental Services at the location specified below. Submit hardcopies of forms requiring signatures as originally-signed copies and scan such signed forms for electronic submission. Facsimiles of the *Consistency Application* are not acceptable under any circumstances.

Attention: Joseph T. Fontaine, Trading Programs Manager
State of New Hampshire Department of Environmental Services Air Resources Division
P.O. Box 95, 29 Hazen Drive
Concord, NH 03302-0095

The *Consistency Application* has three parts, as described below. Each part comprises specified forms and required documentation. The *Consistency Application* has been created as a Microsoft Word document with editable fields. Enter information directly into the fields provided or submit information or documentation as an attachment, as directed. Include headers on all attachments indicating the form to which each is attached, the offset project name, and offset project ID code.

The Project Sponsor should save an electronic copy for his or her file to serve as a reference for any necessary remediation.

3. Consistency Application Forms

The *Consistency Application* includes ten (10) forms divided into three parts, as follows:

Part 1. General Information Forms

- Form 1.1 – Coversheet
- Form 1.2 – General Information
- Form 1.3 – Attestations
- Form 1.4 – Project Sponsor Agreement
- Form 1.5 – Disclosure of Greenhouse Gas Emissions Data Reporting

Part 2. Category-Specific Information and Documentation Forms

- Form 2.1 – Project Description
- Form 2.2 – Demonstration of Eligibility
- Form 2.3 – Emissions Baseline
- Form 2.4 – Monitoring and Verification Plan

Part 3. Independent Verification Form

- Form 3.1 – Independent Verifier Certification Statement and Report

The following instructions address each of the forms in numerical order. Note that the forms themselves include many embedded instructions.

Part 1. General Information Forms

The five (5) forms in Part 1 of the *Consistency Application* address general requirements applicable to SF_6 offset projects. Instructions for the Part 1 forms are provided below.

Form 1.1 Coversheet

Enter the requested information in the editable text fields in the form.

Check the boxes to indicate which forms are being submitted. For information about entering the Project Sponsor, offset project name and offset project ID code, and RGGI COATS account name and number, see instructions below for Form 1.2, General Information.

Submit all forms including the Coversheet. If a required form is not submitted, the *Consistency Application* will not be considered complete for commencement of review by the New Hampshire Department of Environmental Services.

Form 1.2 General Information

Enter the requested information in the editable text fields in the form. If a text field is not applicable or is unanswerable, enter "NA." Note the following:

Offset Project ID Code: Enter the offset project ID code. The offset project ID code is the alphanumeric code generated when the Project Sponsor creates a record of the offset project in the RGGI CO_2 Allowance Tracking System (RGGI COATS). See the RGGI COATS User's Guide for more information about creating an offset project record in RGGI COATS, available at http://www.rggi-coats.org.

Project Information: Enter project information. The name of the offset project should be the same name entered by the Project Sponsor when creating a project record in RGGI COATS. The project location entered should be the primary location of the project if the project consists of actions at multiple locations. The summary narrative of the project should indicate all locations where project actions occur or will occur.

Project Sponsor: Identify the Project Sponsor and provide his or her contact information. The Project Sponsor is the natural person who is the Authorized Account Representative for the RGGI COATS general account identified in the *Consistency Application*.

Project Sponsor Organization: Provide the full legal name of the organization the Project Sponsor represents, including any alternative names under which the organization also may be doing business (e.g., John Doe Enterprises, Inc., d/b/a JDE). If the Project Sponsor is representing himself or herself as an individual, enter "NA".

RGGI COATS General Account Name and Number: Enter the RGGI COATS general account name and number. The RGGI COATS general account identified in the *Consistency Application* is the RGGI COATS account into which any awarded CO_2 offset allowances related to the offset project will be transferred.

Form 1.3 Attestations

Sign and date the form. Submit the originally signed form as part of the paper hardcopy *Consistency Application*. Scan the signed and dated form for submission as part of the electronic version of the *Consistency Application*.

Form 1.4 Project Sponsor Agreement

Sign and date the form. Submit the originally signed form as part of the paper hardcopy *Consistency Application*. Scan the signed and dated form for submission as part of the electronic version of the *Consistency Application*.

Form 1.5 Disclosure of Greenhouse Gas Emissions Data Reporting

Check the appropriate box in the form to indicate whether greenhouse gas emissions data related to the offset project have been or will be reported to any voluntary or mandatory programs, other than the CO_2 Budget Trading Program. For each program for which data have been or will be reported, provide the program name, the program type (voluntary or mandatory), program contact information (website or street address), the categories of emissions data reported, the frequency of reporting, when the reporting began or will begin, and reporting status (prior, current, future). The Project Sponsor must disclose future reporting related to current commitments made to voluntary programs as well as future reporting mandated by current statutes, regulations, or judicial or administrative orders.

Offset Project Name | ***Offset Project ID Code***

Form 1.1 – Coversheet

Project Sponsor

Project Sponsor Organization

RGGI COATS General Account Name

RGGI COATS General Account Number

Each of the following forms must be submitted. Check the boxes below to indicate that the submitted *Consistency Application* includes each of the required forms:

- ☐ Form 1.2 – General Information
- ☐ Form 1.3 – Attestations
- ☐ Form 1.4 – Project Sponsor Agreement
- ☐ Form 1.5 – Disclosure of Greenhouse Gas Emissions Data Reporting
- ☐ Form 2.1 – Project Description
- ☐ Form 2.2 – Demonstration of Eligibility
- ☐ Form 2.3 – Emissions Baseline
- ☐ Form 2.4 – Monitoring and Verification Plan
- ☐ Form 3.1 – Independent Verifier Certification Statement and Report

Offset Project Name | ***Offset Project ID Code***

Form 1.2 – General Information

Project Sponsor (RGGI COATS Authorized Account Representative)

Telephone Number | ***Fax Number*** | ***Email Address***

Street Address

City | ***State/Province*** | ***Postal Code*** | ***Country***

RGGI COATS General Account Name

RGGI COATS General Account Number

Name of Offset Project | ***Application Date***

Summary Description of Offset Project

Project City | ***Project County*** | ***Project State*** | ***Project Commencement Date***

Project Sponsor Organization

Primary Street Address

City | ***State/Province*** | ***Postal Code*** | ***Country***

Brief Description of Project Sponsor Organization

Telephone Number | ***Website URL***

Independent Verifier (Company/Organization) | ***States Where Verifier Accredited***

Primary Street Address | ***Website URL***

City | ***State/Province*** | ***Postal Code*** | ***Country***

Point of Contact for Project

Contact Telephone Number | ***Contact Fax Number*** | ***Contact Email Address***

Contact Street Address

City | ***State/Province*** | ***Postal Code*** | ***Country***

Offset Project Name	*Offset Project ID Code*

Form 1.3 – Attestations

The undersigned Project Sponsor certifies the truth of the following statements:

1. The offset project referenced in this *Consistency Application* is not required pursuant to any local, state, or federal law, regulation, or administrative or judicial order.
2. The offset project referenced in this *Consistency Application* has not and will not be awarded credits or allowances under any other greenhouse gas program.
3. The offset project referenced in this *Consistency Application* has not and will not receive any funding or other incentives from the Greenhouse Gas Emissions Reduction Fund under the New Hampshire Public Utilities Commission regulation Puc 2600.
4. A *Consistency Application* for the offset project or any portion of the offset project referenced in this *Consistency Application* has not been filed in any other participating state.
5. All offset projects for which the Project Sponsor or project sponsor organization has received CO_2 offset allowances, if any, under the Project Sponsor's or project sponsor organization's ownership or control (or under the ownership or control of any entity which controls, is controlled by, or has common control with the Project Sponsor or project sponsor organization) are in compliance with all applicable requirements of the CO_2 Budget Trading Program in all participating states.
6. I am authorized to make this submission on behalf of the project sponsor organization. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this *Consistency Application* and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Project Sponsor signature	date
printed name	
title	
organization	notary

Offset Project Name	*Offset Project ID Code*

Form 1.4 – Project Sponsor Agreement

The undersigned Project Sponsor recognizes and accepts that the application for, and the receipt of, CO_2 offset allowances under the CO_2 Budget Trading Program is predicated on the Project Sponsor following all the requirements of Env-A 4700. The undersigned Project Sponsor holds the legal rights to the offset project, or has been granted the right to act on behalf of a party that holds the legal rights to the offset project. The Project Sponsor understands that eligibility for the award of CO_2 offset allowance under Env-A 4700 is contingent on meeting the requirements of Env-A 4700. The Project Sponsor authorizes the New Hampshire Department of Environmental Services or its agent to audit this offset project for purposes of verifying that the offset project, including the Monitoring and Verification Plan, has been implemented as described in this application. The Project Sponsor understands that this right to audit shall include the right to enter the physical location of the offset project. The Project Sponsor submits to the legal jurisdiction of the State of New Hampshire.

Project Sponsor signature	date
printed name	
title	
organization	notary

Offset Project Name | ***Offset Project ID Code***

Form 1.5 – Disclosure of Greenhouse Gas Emissions Data Reporting

Check the box below that applies:

☐ No greenhouse gas emissions data related to the offset project referenced in this *Consistency Application* have been or will be reported to a voluntary or mandatory program other than the CO_2 Budget Trading Program.

☐ Greenhouse gas emissions data related to the offset project referenced in this *Consistency Application* have been or will be reported to a voluntary or mandatory program other than the CO_2 Budget Trading Program. Information for all such programs to which greenhouse gas emissions data have been or will be reported is provided below.

Name of Program to which GHG Emissions Data Reported

Check all that apply:

☐ Reporting is currently ongoing
☐ Reporting was conducted in the past
☐ Reporting will be conducted in the future
☐ Reporting is mandatory
☐ Reporting is voluntary

Enter Frequency of Reporting

Enter Reporting Start Date

Program Contact Information – Address

Program Website

Categories Of Emissions Data Reported

Name of Program to which GHG Emissions Data Reported

Check all that apply:

☐ Reporting is currently ongoing
☐ Reporting was conducted in the past
☐ Reporting will be conducted in the future
☐ Reporting is mandatory
☐ Reporting is voluntary

Enter Frequency of Reporting

Enter Reporting Start Date

Program Contact Information – Address

Program Website

Categories of Emissions Data Reported

Add extra pages as needed.

Part 2. Category-Specific Information and Documentation Forms

The four (4) forms in Part 2 of *the Consistency Application* address category-specific requirements and documentation applicable to SF_6 offset projects. Instructions for the Part 2 forms are provided below.

Form 2.1 Project Description

Attach a detailed narrative of the offset project. The attached narrative must include a header that indicates it is an attachment to Form 2.1 and identifies the offset project name and offset project ID code. The narrative must include the following information:

1. Description of Entity and Service Territory. Describe the transmission and/or distribution entity. List and describe the assets and equipment used to transmit and distribute electricity to the electrical load of customers within the entity. All of the assets and equipment listed as part of the transmission and/or distribution entity must be located within New Hampshire. The geographic area of the transmission and/or distribution entity may not span more than one state.

   Describe the service territory of the electric transmission and/or distribution entity. List all geographic locations (e.g., counties, cities, towns) that the entity serves. Include a map to scale of the service territory representing authorized areas of service. The service territory described must be that specified by the New Hampshire Public Utilities Commission for which the entity has a regulatory obligation to serve electrical load.

2. Owner and Operator of Entity. Provide the organization legal name(s), point(s) of contact information, and physical address for both the owner and operator of the transmission and/or distribution entity.

   Provide the same owner and operator names and contact information as provided to the New Hampshire Public Utilities Commission. The owner is the legal entity that owns the transmission and/or distribution entity. The operator, which may or may not be identical to the owner, is the legal entity responsible for operating, controlling, or supervising the transmission and/or distribution entity under a written contract with the owner of entity.

   If the owner or operator of the transmission and/or distribution entity is a subsidiary of a corporate parent or holding company, provide the organization legal name(s), point(s) of contact information, and physical address for the parent company.

3. Description of Incremental Actions and Summary of Eligibility. Describe the incremental actions that will be taken as part of the offset project in one or more of the following three categories: (1) early retirement and replacement of electrical equipment; (2) repair/refurbishment of electrical equipment, including specific management practices to reduce equipment leakage of SF_6; and (3) education and training to improve handling of SF_6, including cylinder handling and gas cart operation and maintenance. Describe how such actions are consistent with the guidance provided in International Electrotechnical Commission (IEC) 1634, "High-voltage switchgear and control gear—Use and handling of sulfur hexafluoride (SF_6) in high-voltage switchgear and control gear" (CEI/IEC 1634, 1995-04), and Electric

Power Research Institute (EPRI), "Practical Guide to SF_6 Handling Practices" (TR-113933, 2002). All incremental actions must take place within the boundaries of the transmission and/or distribution entity.

Summarize the documentation provided in Form 2.2 that demonstrates that the offset project meets the eligibility requirements of Env-A 4700.

Form 2.2 Demonstration of Eligibility

Enter the requested information directly in the editable text fields in Form 2.2 and attach documentation, as directed below. Each attachment must include a header that indicates it is an attachment to Form 2.2 and includes the offset project name and offset project ID code. The following information and documentation must be provided:

1. Calculate and enter the baseline year SF_6 emissions rate for the transmission and/or distribution entity where indicated on the form. Based on Env-A 4700 Table 4706-1, enter the applicable emissions rate performance standard that applies to the entity where indicated on the form.

   To demonstrate that the offset project has an SF_6 entity-wide emissions rate for the baseline year that is less than the applicable emissions rate performance standard, calculate the emission rate using the following formula:

   $$SF_6 \text{ Emissions Rate (\%)} = [(\text{Total } SF_6 \text{ Emissions for Baseline Year})/ (\text{Total } SF_6 \text{ Nameplate Capacity at End of Baseline Year})] \times 100$$

   The entity-wide emissions used to calculate the entity-wide emissions rate entered in Form 2.2 must be that provided in Form 2.3 to document baseline year SF_6 emissions for the transmission and/or distribution entity. Total SF_6 nameplate capacity at the end of the baseline year must be that provided in the Entity-wide SF_6 Inventory Tracking System as an attachment to Form 2.3.

   If the entity-wide emissions rate is less than the applicable emissions rate performance standard, then Form 2.2 is complete.

2. If the SF_6 emissions rate is greater than the applicable emissions rate performance standard, attach documentation to demonstrate that the project is being implemented at a transmission and/or distribution entity serving a predominantly urban service territory and that at least two of the four criteria listed at b. through e. below are met:

   a. Predominantly Urban Service Territory. Provide documentation that either greater than 50% of the entity's SF_6 nameplate capacity is located in an urban area or greater than 50% of the electrical load served within the entity's service territory is located in an urban area. An urban area is an area that has a population density of at least 1,000 people per square mile. Include the following documentation (include (i) and either (ii) or (iii)):

      (i) Map to scale of the service territory delineating the specific geographic locations that have equal to or greater than 1,000 persons per square mile. For these geographic locations, list the names of the urban areas, their populations, and population densities; and

(ii) Documentation that greater than 50% of the entity's SF_6 nameplate capacity is located in urban areas. Identify the manufacturer and model of the equipment, total SF_6 nameplate capacity, and equipment locations (e.g., name of substation) in urban areas. Total the nameplate capacity of SF_6-containing operating equipment that is located in urban areas. Divide that total by the total SF_6 nameplate capacity that was used to calculate the emissions rate. The result must be greater than 50%; or

(iii) Documentation that greater than 50% of the entity's electrical load served within its service territory is located in an urban area.

b. Age of Equipment: Provide documentation that the entity is comprised of transmission and distribution equipment that is older than the national average age of equipment. Identify the year of purchase or year of installation of each piece of installed transmission and distribution equipment that has an SF_6 nameplate capacity. Divide the SF_6 nameplate capacity of the equipment that is older than 30 years—the national average age of transmission and distribution equipment—by the total SF_6 nameplate capacity used to calculate the baseline entity-wide emissions rate. The result must be greater than 75% of the total SF_6 nameplate capacity.

c. Poor Accessibility to Underground Equipment: Provide documentation that a majority of the entity's electricity load is served by equipment that is located underground. Identify the manufacturer and model of the SF_6-containing operating equipment located underground, the SF_6 nameplate capacity of such equipment, and the underground locations of each piece of such equipment. Divide the total SF_6 nameplate capacity identified as being located underground by the total SF_6 nameplate capacity used to calculate the baseline entity-wide emissions rate. The result must demonstrate that greater than 50% of the entity's SF_6 nameplate capacity is located underground.

Demonstrate that regular ongoing maintenance is precluded by the location of underground equipment. Describe how maintenance procedures, schedules, or costs differ for underground equipment compared to above-ground equipment in terms of the frequency, duration, cost, and/or other similar factors.

Retain supportive documentation for inspection by the New Hampshire Department of Environmental Services and independent verifier, such as third-party audits, reports to regulators or other organizations responsible for system reliability, and written maintenance procedures, schedules, and/or other records.

d. System Reliability: Provide documentation of the inability to take a substantial portion of equipment out of service, as such activity would impair system reliability. Identify the manufacturer, model, and SF_6 nameplate capacity of each piece of SF_6-containing operating equipment in the entity's service territory that, if taken out of service, would impair system reliability. Total the SF_6 nameplate capacity of this equipment. Divide that total by the total SF_6 nameplate capacity used to calculate the baseline entity-wide emissions rate. The result must demonstrate that greater than 33% of the entity's SF_6 nameplate capacity is comprised of SF_6-containing operating equipment that would cause system reliability concerns if such equipment were taken out of service.

Retain supportive documentation for inspection by the New Hampshire Department of Environmental Services and independent verifier, such as third-party audits, reports to regulators or other organizations responsible for system reliability, written equipment replacement procedures and schedules, and/or other records that substantiate that the SF_6-containing operating equipment cannot be taken out of service without impairing system reliability. Include as part of such supportive documentation entity-wide decommissioning records for the previous two years showing that similar equipment has not been taken out of service. An example of relevant data would be evidence that the entity or a subset of the entity has a load factor of at least 80%, resulting in insufficient capacity to cover the circuit outages resulting from equipment taken out of service.

e. Inherently Leak-Prone Equipment: Provide documentation that required equipment purpose or design for a substantial portion of entity equipment results in inherently leak-prone equipment. Identify the manufacturer, model, and SF_6 nameplate capacity of each piece of equipment that has a required purpose or design that results in it being inherently leak-prone. Inherently leak prone equipment is SF_6-containing operating equipment with an average annual SF_6 leak rate of 10% or higher since its installation. If actual equipment leak data are unavailable, estimate the average annual leak rates for individual pieces of equipment based on the number of service calls required since the equipment's installation and the amount of SF_6 leakage that typically triggers a service call (e.g. 10% loss of nameplate capacity). For example, a piece of equipment in service for three years that has required six service calls since its installation meets the definition of inherently leak-prone since its implied average annual leak rate of 20% (two service calls per year and assumed 10% loss of nameplate capacity per service call) is greater than the average annual leak rate of 10%.

   Total the SF_6 nameplate capacity of the inherently leak-prone equipment. Divide that total by the total SF_6 nameplate capacity used to calculate the baseline entity-wide emissions rate. The result must demonstrate that greater than 33% of the nameplate capacity of SF_6-containing operating equipment is considered inherently leak-prone.

   Retain supportive documentation for inspection by the New Hampshire Department of Environmental Services and independent verifier, such as third-party audits, manufacturer or industry studies, reports to regulators or other organizations responsible for system reliability, or written equipment replacement data and schedules.

Form 2.3 Emissions Baseline

Provide the following information in the editable text fields in Form 2.3 or as an attachment, as directed. Each attachment must include a header that indicates it is an attachment to Form 2.3 and includes the offset project name and offset project ID code. The following information and documentation must be provided as specified below:

1. Identify Baseline Year. Enter the designated baseline year where requested in Form 2.3. The baseline year must be the calendar year immediately preceding the calendar year in which the *Consistency Application* is filed.

2. Enter SF_6 Values from the Entity-wide SF_6 Inventory Tracking System. Enter the requested SF_6 values in Form 2.3. The SF_6 values must be derived from the submitted Entity-wide SF_6 Inventory Tracking System (see instructions at Number 3 below).

   To calculate the total entity-wide emissions of SF_6 for the baseline year, use the following mass-balance method:

   SF_6 Emissions (lbs) = (SF_6 Change in Inventory) + (SF_6 Purchases and Acquisitions) – (SF_6 Sales and Disbursements) – (Change in Total SF_6 Nameplate Capacity of Equipment)

   To calculate the SF_6 values requested, use the following equation that corresponds to the mass balance method described above:

Total SF_6		SF_6 Change in Inventory (lbs)		Purchases and Acquisitions of SF_6 (lbs)		Sales and Disbursements of SF_6 (lbs)		Change in Total SF_6 Nameplate Capacity of Equipment (lbs)
Emissions (lbs)	=	$(V_{iby} - V_{iey})$	+	$(PA_{psd} + PA_e + PA_{rre})$	–	$(SD_{op} + SD_{rs} + SD_{df} + SD_{sor})$	–	$(CNP_{ne} - CNP_{rse})$

   where:

   - SF_6 Change in Inventory is the difference between the quantity of SF_6 gas in storage at the beginning of the reporting year (i.e., V_{iby}) and the quantity in storage at the end of the reporting year (i.e., V_{iey}). The term "quantity in storage" includes all SF_6 gas contained in cylinders (such as 115-pound storage cylinders), gas carts, and other storage containers. Quantity in storage does not include SF_6 gas contained in SF_6-using operating equipment. The change in storage inventory will be negative if the quantity of SF_6 gas in storage increases over the course of the year. This portion of the equation is defined as follows:

     - V_{iby} = SF_6 inventory in cylinders, gas carts, and other storage containers (not SF_6-containing operating equipment) at the beginning of the reporting year[1]

     - V_{iey} = SF_6 inventory in cylinders, gas carts, and other storage containers (not SF_6-containing operating equipment) at the end of the reporting year

     Determine change in inventory based on the quantities of SF_6 gas contained in each cylinder, storage container, and gas cart at both the start of the year and the end of the year. Total the start and end quantities for cylinders, as recorded in cylinder logs required by the SF_6 Inventory Management and Auditing

[1] The beginning-of-year inventory for a given year should always equal the end-of-year inventory for the previous year. Therefore, an end-of-year inventory measurement should be applied to the beginning-of-year inventory input for the following calendar year.

Protocol (see instructions for Form 2.4). Total the start and end quantities for gas carts and any other storage containers, as recorded in the Entity-wide SF_6 Inventory Tracking System. Combine totals to obtain the storage inventory total. Use quantities that represent the physical weights of the gas stored, not a calculated estimate based on temperature and pressure.

- Purchases and Acquisitions of SF_6 are the sum of all the SF_6 gas acquired from other parties during the reporting year, contained in storage containers or SF_6-using operating equipment. Acquisitions include SF_6 provided by equipment manufacturers with and inside equipment and SF_6 returned to the entity after off-site recycling. This portion of the equation is defined as follows:

  - PA_{psd} = SF_6 purchased from suppliers or distributors in cylinders
  - PA_e = SF_6 provided by equipment manufacturers with or inside SF_6-containing operating equipment
  - PA_{rre} = SF_6 returned to the reporting entity after off-site recycling

  Sum the additions to the inventory during the year. Log each purchase and acquisition into the Entity-wide SF_6 Inventory Tracking System. Retain as documentation of data, for inspection by the New Hampshire Department of Environmental Services and independent verifier, the corresponding purchase/acquisition records of SF_6 gas and SF_6 gas that accompanies SF_6-containing equipment purchases, supplier receipts of cylinders, and receipts of recycled SF_6 returned to the entity after off-site recycling.

- Sales and Disbursements of SF_6 are the sum of all the SF_6 gas sold or otherwise disbursed to other parties during the reporting year, contained in storage containers and SF_6-using operating equipment. Disbursements include SF_6 returned to the supplier, SF_6 sent off-site for recycling, and SF_6 sent off-site for destruction. This portion of the equation is defined as follows:

  - SD_{op} = Sales of SF_6 to other parties, including gas left in SF_6-containing operating equipment that is sold
  - SD_{rs} = Returns of SF_6 to supplier (producer or distributor)
  - SD_{df} = SF_6 sent to destruction facilities
  - SD_{sor} = SF_6 sent off-site for recycling

  Sum the subtractions from inventory, i.e., the sales and disbursements of SF_6 during the reporting year. Log each sale and disbursement into the Entity-wide SF_6 Inventory Tracking System. Retain as documentation of data, for inspection by the New Hampshire Department of Environmental Services and independent verifier, the corresponding sales/disbursement records of SF_6 gas and SF_6 gas that is contained within equipment sold, supplier receipts of cylinders, and receipts of SF_6 sent to destruction facilities or off-site for recycling.

- Change in Total SF_6 Nameplate Capacity of Equipment is the net change in total nameplate capacity of SF_6-containing operating equipment during the reporting year. The net change in nameplate capacity is equal to new equipment nameplate capacity minus retired equipment nameplate capacity. This quantity will be negative if the retired equipment has a total nameplate capacity larger than the total nameplate capacity of the new equipment. "Nameplate capacity" refers to the full and proper SF_6 charge of the equipment rather than to the actual charge, which may reflect leakage. This portion of the equation is defined as follows:

  - CNP_{ne} = Total SF_6 nameplate capacity of new SF_6-containing operating equipment at proper full charge
  - CNP_{rse} = Total SF_6 nameplate capacity of retired SF_6-containing operating equipment at proper full charge

  Record the total SF_6 nameplate capacity of equipment at both the start of the reporting year and the end of the reporting year in the Entity-wide SF_6 Inventory Tracking System. Determine change in total SF_6 nameplate capacity of equipment based on the difference between the two quantities. Retain as documentation of data, for inspection by the New Hampshire Department of Environmental Services and independent verifier, records of newly installed equipment and records of retired equipment.

3. Provide Inventory Documentation. Attach the Entity-wide SF_6 Inventory Tracking System to Form 2.3 as documentation of reported SF_6 values and emissions calculations. This is the entity-wide tracking system specified in the Monitoring and Verification Plan (see instructions for Form 2.4). The attached inventory tracking system must be provided in spreadsheet form (or other appropriate database form) and include a header that indicates it is an attachment to Form 2.3 and includes the offset project name and offset project ID code. For submission of the electronic version of the *Consistency Application*, provide the spreadsheet as a distinct electronic file.

Form 2.4 Monitoring and Verification Plan

Provide the Monitoring and Verification (M&V) Plan as an attachment to Form 2.4. The attached M&V Plan, and any related separate attachments, must include a header that indicates it is an attachment to Form 2.4 and includes the offset project name and offset project ID code.

Check the boxes in Form 2.4 to indicate that the attached M&V Plan includes the required components. The M&V Plan must include the following:

1. Data Sources and Calculations. Document the data sources and calculations that will be used to determine baseline year SF_6 emissions and reporting year SF_6 emissions. Data sources and calculations must be consistent with those required pursuant to Env-A 4700.

2. SF_6 Inventory Management and Auditing Protocol. Provide an SF_6 Inventory Management and Auditing Protocol, which must include the following:

a. Description of the Entity-wide SF_6 Inventory Tracking System. Provide a detailed description of the Entity-wide SF_6 Inventory Tracking System, including system maintenance, system back-up, system security features, report capacities, and a list of data fields. Provide a spreadsheet template (or other appropriate database template) of the Entity-wide SF_6 Inventory Tracking System, which must contain the following:

   i. Identification of the facility(ies) from which all SF_6 gas is procured and disbursed;

   ii. An entity-wide log of all SF_6 gas procurements and disbursals; and

   iii. An entity-wide inventory of all SF_6-containing operating equipment and all other SF_6-related items, including cylinders, gas carts, and other SF_6 storage containers.

b. Personnel Contact Information. Provide the following information for personnel responsible for maintaining the Entity-wide SF_6 Inventory Tracking System:

   i. An organizational structure of the "inventory management team," which identifies the names and contact information for the personnel selected to oversee data entry into the Entity-wide SF_6 Inventory Tracking System and into any distinct tracking system for a substation(s) or other designated location(s) that is used to provide data to the Entity-wide SF_6 Inventory Tracking System (include names of outside contractors that provide inventory management and/or data entry services); and

   ii. Names and contact information of the auditors of the Entity-wide SF_6 Inventory Tracking System and any distinct tracking system(s) for a substation(s) or other designated location(s) that is used to provide data to the Entity-wide SF_6 Inventory Tracking System.

c. Inventory Tracking System Procedures and Training. Document the following Entity-wide SF_6 Inventory Tracking System procedures for data input, records keeping and records retention, and maintenance of cylinder logs:

   i. Procedures for input of data into the Entity-wide SF_6 Inventory Tracking System and any other distinct tracking system for a substation(s) or other designated location(s) that is used to provide data to the Entity-wide SF_6 Inventory Tracking System (e.g., data entry frequency; data fields requirements);

   ii. Procedures for records retention, including: purchase/sales records, supplier receipts of cylinders received from and returned to the supplier, recycling and destruction receipts, and records of newly installed SF_6-containing operating equipment and retired equipment;

   iii. Procedures for the maintenance of cylinder-specific logs, including maintenance of a master sheet identifying all cylinders using unique identifiers, and a standardized cylinder log form that includes:

      (A) Location and specific identifying information of the equipment being filled with the SF_6 gas from the cylinder;

      (B) Location and specific identifying information of the equipment from which SF_6 is being recovered and placed into the cylinder for transfer, reuse, recycling, reclamation, or destruction purposes; and

(C) Weight of the cylinder before and after: (1) the cylinder is connected to and disconnected from an automated gas top-off and filling system; or (2) any activity where gas is manually added to or removed from a cylinder. Note that estimating the weight of a cylinder using temperature and pressure to estimate SF_6 disbursed from or added to a cylinder is permitted for interim measurements of cylinder weight throughout the year. However, estimating cylinder weight using temperature and pressure is not allowed for determining beginning-of-year and end-of-year cylinder weight. Physical weighing of cylinders using a certified scale is the only acceptable method for calculating cylinder weight that will be used to determine inputs to the mass-balance formula;[2] and

iv. Procedures for confirming that meters and scales are used for the filling and weighing of cylinders at each substation or other location designated for such activities and are consistently calibrated to manufacturer recommendations; and

v. An entity-wide training plan for the "inventory management team" on the use of the Entity-wide SF_6 Inventory Tracking System as a data source, the use of the SF_6 mass-balance method, and recordkeeping and record retention practices.

d. Auditing Procedures and Plans. Document the following auditing procedures and plans:

i. A schedule (i.e., calendar of dates) for conducting audits;

ii. Procedures for audits of inventory management, including all inventory tracking systems, data entry, and maintenance of cylinder logs in accordance with the M&V Plan;

iii. A template for a report on the findings of audits including identification of areas in need of corrective actions; and

iv. An entity-wide training plan for auditors on how to conduct the procedures for the audits.

3. Quality Assurance/Quality Control (QA/QC) Protocol. Document the QA/QC process, which must include the following:

a. Contact Information and QA/QC Schedule. Provide the following:

i. Names and contact information for QA/QC officers in charge of administering the QA/QC process for inventory data; and

ii. A schedule establishing periodic (such as quarterly or semi-annually) QA/QC procedures for the inventory of:

(A) Entity-wide SF_6 gas procurements and disbursals;

[2] Temperature and pressure based calculations are not considered reliable enough for determining inputs that will be used to calculate emissions. Temperature and pressure based calculations are limited by the gas law scope of their application.

(B) All SF_6-containing operating equipment and all other SF_6 storage-related items, including cylinders, gas carts, and other SF_6 storage containers; and

(C) All cylinder logs; and

b. QA/QC Procedures and Training. Document the following QA/QC procedures and training plan:

i. Procedures for entity-wide inventory of SF_6 gas procurements and disbursals, which include a review of at least 10% of the receipts for purchases/sales and disbursals kept at each substation (or other designated location) against entries in the Entity-wide SF_6 Inventory Tracking System to ensure accuracy and completeness in data entry;

ii. Procedures for entity-wide inventory of all operating equipment containing SF_6, which include a review of at least 10% of the records of newly installed and retired equipment and corresponding SF_6 nameplate capacity against entries in the Entity-wide SF_6 Inventory Tracking System to ensure accuracy and completeness in data entry;

iii. Procedures for all cylinder logs, which include:

(A) Confirmation in the form of certifications signed by inventory management team members that meters and scales are consistently calibrated to manufacturer recommendations for the filling and weighing of cylinders at each substation (or other designated location); and

(B) Periodic review of the master sheet of cylinder logs to account for cylinder totals at each substation (or other designated location); and

iv. Procedures for the review of annual emissions calculations in order to:

(A) Ensure complete compilation of data from all designated personnel of the inventory management team into the Entity-wide SF_6 Inventory Tracking System prior to calculation of emissions;

(B) Identify unusually large changes to inventory, purchases/acquisitions, or sales/disbursals, and determine if the changes can be explained or if there is an error in reported inputs to the SF_6 mass balance method; and

(C) Ensure no negative inputs are entered and negative emissions are not calculated, except for changes in storage inventory and nameplate capacity, which may result in negative numbers; and

v. An entity-wide training plan for QA/QC officers addressing QA/QC procedures for Entity-wide SF_6 Inventory Tracking System data entry, use of the SF_6 mass-balance method, compilation and retention of associated sources of data, and recordkeeping practices to ensure consistent and complete inventory data.

Offset Project Name	*Offset Project ID Code*

Form 2.1 – Project Description

Attach a detailed narrative of the actions to be taken as part of the offset project. The attached narrative must include a header that indicates it is an attachment to Form 2.1 and includes the offset project name and offset project ID code.

Check the boxes below to indicate that the detailed narrative includes the following required information:

- ☐ 1. Description of the transmission and/or distribution entity and the service territory served by the entity.
- ☐ 2. Identification and contact information for the owner and operator of the transmission and/or distribution entity.
- ☐ 3. Description of incremental actions to be taken as part of the offset project and a summary of eligibility.

Offset Project Name	*Offset Project ID Code*

Form 2.2 – Demonstration of Eligibility

Enter the SF_6 emissions rate for the transmission and/or distribution entity. Enter the applicable emissions rate performance standard from Env-A 4700 Table 4706-1 that applies to the transmission and/or distribution entity.

Baseline SF_6 Entity-wide Emissions Rate	*Applicable Performance Standard Emissions Rate*

If the entity-wide emissions rate is less than the applicable emissions rate performance standard, then Form 2.2 is complete.

If the entity-wide emissions rate is greater than the applicable emissions rate performance standard, check the applicable boxes below to indicate that documentation of the following is attached:

☐ A. The project is being implemented at a transmission and/or distribution entity serving a predominantly urban service territory; and

At least two of the following factors prevent optimal management of SF_6:

☐ B. The entity is comprised of older than average installed transmission and distribution equipment in relation to the national average age of equipment.

☐ C. A majority of the entity's electricity load is served by equipment that is located underground, and poor accessibility of such underground equipment precludes management of SF_6 emissions through regular ongoing maintenance.

☐ D. Inability to take a substantial portion of equipment out of service, as such activity would impair system reliability.

☐ E. Required equipment purpose or design for a substantial portion of the entity's transmission and distribution equipment results in inherently leak-prone equipment.

Each attachment must include a header that indicates it is an attachment to Form 2.2 and identifies the offset project name and offset project ID code.

Offset Project Name	*Offset Project ID Code*

Form 2.3 – Emissions Baseline

Provide the Entity-wide SF_6 Inventory Tracking System for the baseline year as an attachment. The attachment must include a header that indicates it is an attachment to Form 2.3 and includes the offset project name and offset project ID code. Using data from the Entity-wide SF_6 Inventory Tracking System, enter the requested information below.

Baseline Year	*Baseline Year Emissions Rate*

Enter the following data for the baseline year (all SF_6 values in lbs):

V_{iby}		=	SF_6 inventory in cylinders, gas carts, and other storage containers (not SF_6-containing operating equipment) at the beginning of the reporting year
V_{iey}		=	SF_6 inventory in cylinders, gas carts, and other storage containers (not SF_6-containing operating equipment) at the end of the reporting year
		=	**Change in SF_6 Inventory in cylinders, gas carts, and other storage containers (not SF_6-containing operating equipment) (V_{iby} - V_{iey})**
PA_{psd}		=	SF_6 purchased from suppliers or distributors in cylinders
PA_e		=	SF_6 provided by equipment manufacturers with or inside SF_6-containing operating equipment
PA_{rre}		=	SF_6 returned to the reporting entity after off-site recycling
		=	**Total Purchases/Acquisitions (PA_{psd} + PA_e + PA_{rre})**
SD_{op}		=	Sales of SF_6 to other parties, including gas left in SF_6-containing operating equipment that is sold
SD_{rs}		=	Returns of SF_6 to supplier (producer or distributor)
SD_{df}		=	SF_6 sent to destruction facilities
SD_{sor}		=	SF_6 sent off-site for recycling
		=	**Total Sales/Disbursements (SD_{op} + SD_{rs} + SD_{df} + SD_{sor})**
CNP_{ne}		=	Total SF_6 nameplate capacity of new SF_6-containing operating equipment at proper full charge
CNP_{rse}		=	Total SF_6 nameplate capacity of retired SF_6-containing operating equipment at proper full charge
		=	**Total Change in SF_6 Nameplate Capacity (CNP_{ne} - CNP_{rse})**
		=	**Total SF_6 Emissions (lbs) [(V_{iby} – V_{iey}) + (PA_{psd} + PA_e + PA_{rre}) – (SD_{op} + SD_{rs} + SD_{df} + SD_{sor}) – (CNP_{ne} – CNP_{rse})]**
		=	**Total SF_6 Emissions (Tons CO_2e) [(Total SF_6 Emissions (lbs) x GWP of SF_6 (22,200))/2000]**

Offset Project Name	*Offset Project ID Code*

Form 2.4 – Monitoring and Verification Plan

Provide the Monitoring and Verification Plan (M&V Plan) as an attachment. The attached M&V Plan must include a header that indicates it is an attachment to Form 2.4 and includes the offset project name and offset project ID code.

Check the boxes below to indicate that required information is attached:

☐ An M&V Plan is attached.

The attached M&V Plan documents the following:

☐ 1. Data sources and calculations

☐ 2. SF_6 Inventory Management and Auditing Protocol, which documents the following components:
- ☐ Description of the Entity-wide SF_6 Inventory Management Tracking System
- ☐ Personnel contact information
- ☐ Inventory tracking system procedures and training
- ☐ Auditing procedures and plans

☐ 3. Quality Assurance and Quality Control (QA/QC) Protocol, which documents the following components:
- ☐ Contact information and QA/QC schedule
- ☐ QA/QC procedures and training

Part 3. Independent Verification Form

The form in Part 3 of the *Consistency Application* addresses requirements and documentation related to the independent verifier certification statement and report. Instructions for the form in Part 3 are provided below.

Form 3.1 Independent Verifier Certification Statement and Report

An accredited verifier must sign and date the form. Submit the originally signed form as part of the paper hardcopy of the *Consistency Application*. Scan the signed and dated form for submission as part of the electronic version of the *Consistency Application*.

Provide the independent verifier report as an attachment to Form 3.1. The verifier report must include a header that indicates it is an attachment to Form 3.1 and includes the offset project name and offset project ID code.

The verifier report must document the following:

1. The verifier has reviewed the entire *Consistency Application* and evaluated the contents of the application in relation to the applicable requirements of Env-A 4700.

2. The verifier has evaluated the adequacy and validity of information supplied by the Project Sponsor to demonstrate that the offset project meets the applicable eligibility requirements of Env-A 4700.

3. The verifier has evaluated the adequacy and validity of information supplied by the Project Sponsor to demonstrate baseline emissions, pursuant to the applicable requirements of Env-A 4700.

4. The verifier has evaluated the adequacy of the monitoring and verification plan submitted pursuant to Env-A 4700.

The verifier report must include the following contents, in the order listed below:

- Cover page with report title and date
- Table of contents
- List of acronyms and abbreviations
- Executive summary
- Description of objective of report
- Identification of the client, including name, address, and other contact information
- Identification of the offset project
- Description of evaluation criteria (applicable regulatory provisions and documentation required in the *Consistency Application*)
- Description of the review and evaluation process, including any site visits and interviews
- Identification of individuals performing the verification work, including the verification team leader and key personnel, and contact information for the team leader

- Description of the materials provided to the verifier by the Project Sponsor
- Evaluation conclusions and findings, including level of assurance provided

Offset Project Name	***Offset Project ID Code***

Form 3.1 – Independent Verifier Certification Statement and Report

An accredited verifier must sign and date Form 3.1. Attach the accredited verifier report. The attached verifier report must include a header that indicates it is an attachment to Form 3.1 and includes the offset project name and offset project ID code.

Name of Accredited Independent Verifier

I certify that the accredited independent verifier identified above reviewed the *Consistency Application*, including all forms and attachments, in its entirety, including a review of the following:

(a) The adequacy and validity of information supplied by the Project Sponsor to demonstrate that the offset project meets the applicable eligibility requirements of Env-A 4700, including the required documentation that must be provided in the *Consistency Application*.

(b) The adequacy and validity of information supplied by the Project Sponsor to demonstrate baseline emissions, pursuant to the applicable requirements of Env-A 4700, including the required documentation that must be provided in the *Consistency Application*.

(c) The adequacy of the Monitoring and Verification Plan in accordance with the applicable requirements of Env-A 4700, including the required documentation that must be provided in the *Consistency Application*.

A verification report is attached that documents the verifier's review of the items listed above and includes evaluation conclusions and findings.

Verifier Representative signature

date

printed name

title

notary